

426/11

1884

Fernando Bern ①

32

99
43

RECORDED
DIV. 3

A.D. 1884, 1st MARCH. N° 4182.

Improvements in Brewing or Producing Ale and Porter.

PROVISIONAL SPECIFICATION.

I EDWARD THOMAS PEMBERTON of 23 Thackery Street Liverpool in the County of Lancaster, Brewer, do hereby declare the nature of my said invention for "IMPROVEMENTS IN BREWING OR PRODUCING ALE AND PORTER" to be as follows:—

5 The main objects are to cheapen and simplify the process of brewing or producing ale and porter and like fermented beverages and to obtain such beverages with improved keeping qualities without the employment of malt.

Hitherto ale and porter have been brewed or produced from wort obtained by a troublesome process of mashing either alone or mixed with saccharine matters such as grape sugar and glucose. Now under my invention I brew fermented beverages 10 from a mixture of grape or uncrystalizable sugar mixed with animal gelatin an alkali and lime or other base and these with or without gentian colomba hops or other flavouring agent and with or without a phosphate such as phosphate of soda.

One method of carrying my invention into practice when it is desired to produce a brew of 14 barrels is to dissolve in 500 gallons of water five and a half hundred 15 weight of golden syrup or grape sugar, 26 pounds of gelatin, that made from the hoofs of ruminating animals being preferred three pounds each of carbonate of soda and potash and 16 to 28 pounds of caustic lime according to the speed of fermentation required. The larger the quantity of lime the quicker the fermentation.

20 In order to obtain ale of the best quality the alkaline carbonates above mentioned should be roasted before admixture with the rest of the materials.

In the manufacture of porter coloring matter is used in the usual way.

The admixture of the materials may be effected in the dissolving vessel but I prefer that they should be made into a composition and that solution should be 25 effected by the agency of steam or boiling water in an ordinary copper. The said composition is carried on a suitable grating in the copper.

After solution fermentation cooling and racking are conducted in manner usual in making ale and porters.

Ale and porter produced as above described, essential elements of novelty being 30 the alkaline carbonate and lime or other base are by preference used alone but they may be mixed with wort.

Dated the twenty ninth day of February 1884.

J. T. KING,
Per W. Johnson,
Agent for the Applicant.

Pemberton's Improvements in Brewing or Producing Ale and Porter.

COMPLETE SPECIFICATION.

I EDWARD THOMAS PEMBERTON of 23 Thackeray Street Liverpool in the County of Lancaster Brewer, do hereby declare the nature of the said invention for IMPROVEMENTS IN BREWING OR PRODUCING ALE AND PORTER" and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

5

The main objects are to cheapen and simplify the process of brewing or producing ale porter and like fermented beverages and to obtain such beverages with improved keeping qualities without the employment of malt.

Hitherto ale and porter have been brewed or produced from wort obtained by a troublesome process of mashing either alone or mixed with saccharine matters such as grape sugar and glucose. Now under my invention I brew fermented beverages from grape or uncrystallizable sugar mixed with animal gelatin an alkali and lime or other base and these with or without gentian colomba hops or other flavouring agent and with or without a phosphate such as phosphate of soda.

15

In order to obtain ale of the best quality the alkaline carbonates above mentioned should be roasted before admixture with the rest of the materials.

In the manufacture of porter colouring matter is used in the usual way.

The admixture of the materials may be effected in the dissolving vessel but I prefer that they should be made into a composition and that solution should be effected by the agency of steam or boiling water in an ordinary copper. The said composition is carried on a suitable grating in the copper.

20

After solution fermentation cooling and racking are conducted in manner usual in making ales and porters.

The following quantities of materials per barrel of 36 gallons are those which I prefer to use to produce ales porters or beers as hereinafter set forth, although it will be evident that the proportions of the materials may be varied within wide limits to produce various strengths and qualities of ale porter and beer.

25

For strong ale I use 50 lbs golden syrup or grape sugar, 3 lbs gelatin, that made from the hoofs of ruminating animals being preferred, 1 ounce of carbonate of soda and potash or either of them, 2 grains of caustic lime or mono sulphate of lime according to the speed of fermentation required (the larger the quantity of lime the quicker the fermentation) and 3 lbs yeast.

30

For mild ale I use, 32 lbs syrup, 2 lbs gelatin, 1 oz : carbonate soda or potash, 2 grains lime and about 2 lbs yeast.

35

For bitter beer I use 36 lbs syrup, 1 lb gelatin, $\frac{1}{2}$ oz : carbonate soda and potash or either and 1 grain lime, and about 2 lbs. yeast.

When it is desired to brew porter or stout the quantities of materials above mentioned for mild ales are used with the addition of sufficient patent or burnt malt to give the desired colour.

40

Gentian, colomba, hops, or other like agents are used as desired to impart particular flavours.

Pemberton's Improvements in Brewing or Producing Ale and Porter.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed I declare that what I claim is:—

First. Brewing or producing ale and porter from a mixture of grape or
5 uncrystalizable sugar animal gelatin, and an alkali substantially as setforth.

Second. A mixture of grape or uncrystalizable sugar animal gelatin, and an alkali for brewing ale and porter substantially as setforth.

Dated the 29th November 1884.

EDWARD THOMAS PEMBERTON.

LONDON: Printed by EYRE AND SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.

1885.